(b) determining the amount of said signal produced by the mixture of step (a);

(c) treating said mixture under conditions for amplifying said target nucleic acid to produce amplified double-stranded DNA;

(d) determining the amount of said signal produced by said mixture of step (c); and

(e) determining if amplification has occurred.

9. (Amended) The method of Claim 4, wherein the amount of target DNA in said sample, prior to amplification, is quantitated by determining the increase in fluorescence [before and after PCR] during amplification.

10. (Amended) A method for monitoring the increase in double-stranded DNA during amplification of a target nucleic acid in a sample, wherein said method comprises the steps of:

(a) providing [a mixture that comprises a PCR] a mixture that comprises all components necessary for the selective amplification of said target nucleic acid by polymerase chain reaction (PCR) containing said sample and a DNA binding agent, wherein said agent is characterized as providing a detectable signal when bound to double-stranded nucleic acid which signal is greater than the amount of said distinguishable from the signal provided by said agent when it is unbound:

(b) determining the amount of said signal produced by the mixture of step (a);

(c) treating said mixture under conditions for amplifying said target nucleic acid; and

(d) determining the amount of said signal produced by said mixture during said treating step (c).

17. (Amended) A kit for amplifying a target nucleic acid, that comprises a PCR buffer that comprises [and] an intercalating agent.